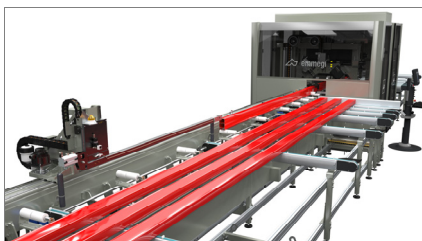
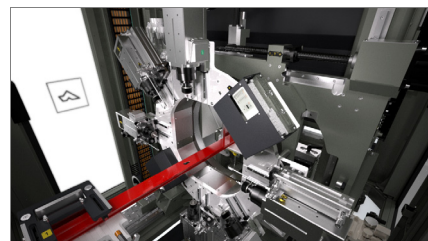


## Quadra L3

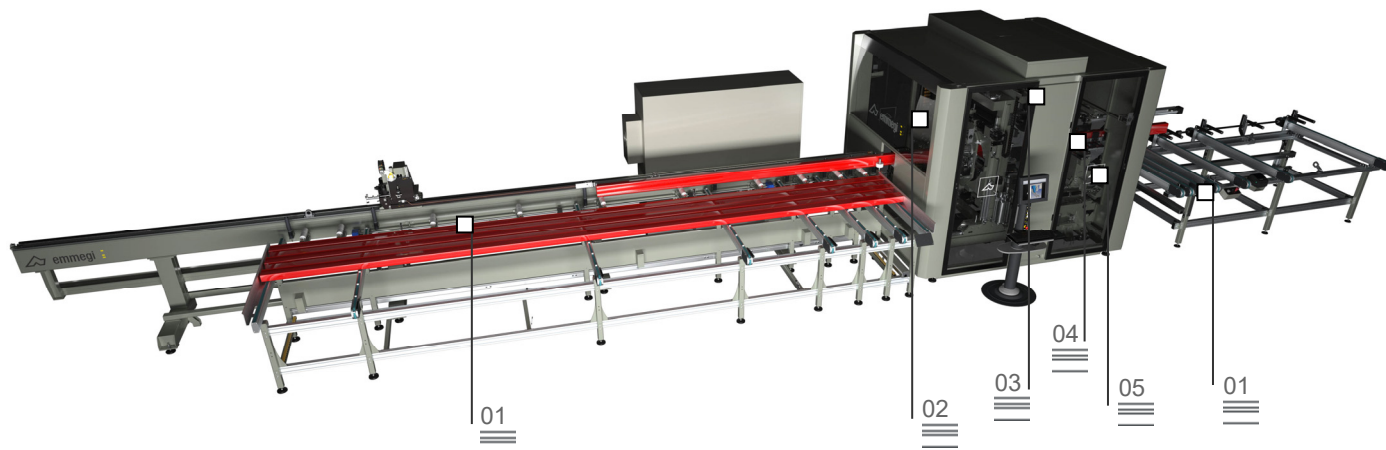
### Machining centre



Automatic bar feed and workpiece unloading 01



Milling unit 02



20-axis CNC machining centre for milling, drilling and cutting operations and drilling at head and end of profiles in aluminium and light alloys. QUADRA L3 is composed of an automatic magazine and a push-feed system for extruded profiles of up to 7500 mm, complete with gripper handling for clamping and traversing the profile in the operating unit. Automation enables loading the next bar by synchronising its feed with the simultaneous return of the gripper for the next pick-up.

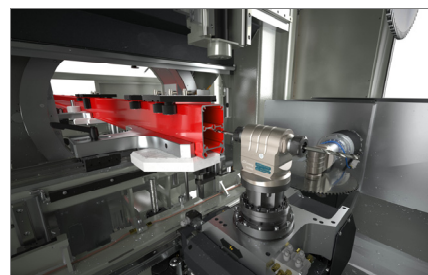
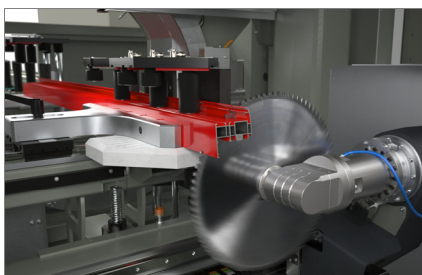
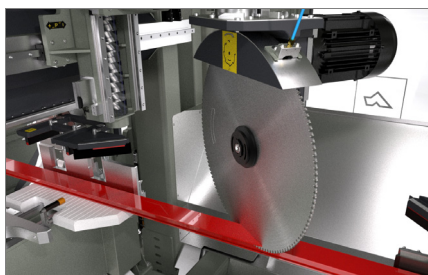
The milling module, cutting module and drilling module for head and end are located in the central part. The 4-axis CNC milling module is equipped with 4 to 6 electrospindles that make it possible to machine any side of the profile, regardless of its orientation. The main cutting module is composed of a 600 mm diameter blade with downstroke movement in three CNC axes. The secondary module operating on 4 CNC axes is equipped with a dual drilling unit that can machine on profile heads.

QUADRA L3 is equipped with an automatic ejector to transfer the machined segment from the cutting unit to the unloading magazine. The unloading unit is composed of a transverse belts magazine and handles profiles with a maximum length of 4000 mm (optional 7500 mm). The central cab contains all work units, ensuring a high soundproofing standard and complete protection for the operator.

Vertical cutting module 03

Horizontal cutting module 04

Drilling module 05



The pictures are provided by way of illustration only

# Quadra L3

Machining centre

## 01

### Automatic bar feed and workpiece unloading

Numerically controlled, high precision and high speed bar positioning system. The system is complete with a gripper to block the profile with automatic horizontal and vertical position adjustment on two CNC axes. To guarantee that each type of profile is grasped with no manual intervention, the numerical control of the gripper slewing axis is also available, which is otherwise handled manually. The loading and unloading belt magazines are used to load profiles with length of up to 7.5 m and offload lengths of up to 4.0 m, with an option for 7.5 m. If required, during loading and unloading, an optional tipping system can automatically rotate the workpiece by 90°.

## 02

### Milling unit

QUADRA L3 is fitted with an exclusive turntable system on which 4 to 6 work units interpolated on 4 axes can operate at the same time: X, Y, Z, A (360° slewing around the axis of the bar). The high-frequency electrospindles are air-cooled, and include an ER 32 tool connector with power up to 5.6 kW in S1. Each unit is equipped with a working field disengagement system by means of a slide on recirculating ball shoes.

## 03

### Vertical cutting module

The CNC-operated cutting module includes a 600 mm diameter circular blade with downward movement on 3 axes, with a range from -45° to +245°, allowing a variety of extruded profile end milling types. The clamping and handling of the segments is done by means of two servocontrolled clamp units on CNC axes.

## 04

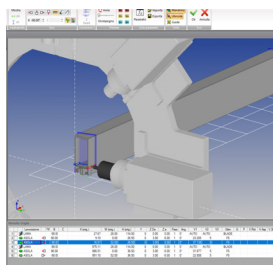
### Horizontal cutting module

Single head cutting unit with numerically controlled horizontal feed, with 350 mm blade and a wide cutting range: -45° to +45°. The setting of any cutting angle is fully automatic and controlled by a 3-axis CNC movement. The horizontal feed allows the machine to cut large bars and execute special cuts.

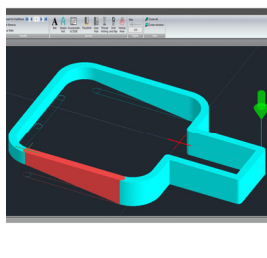
## 05

### Drilling module

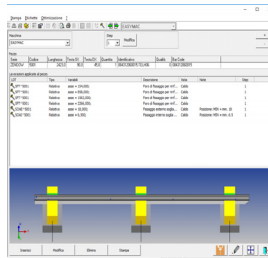
Drilling unit on 4-axis CNC designed for machining at head and end of profile at any angle. Interacts with the horizontal cutting unit, with which it shares the support beam. The cutting and drilling modules enable unloading swarf into a special trapdoor, which can be fitted optionally with a steel chip conveyor belt.



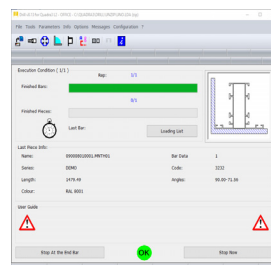
Camplus



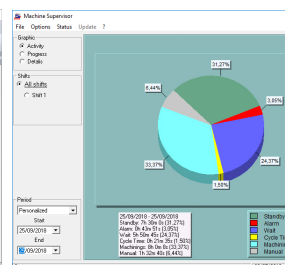
Shape



Job



Drill



Supervisor

#### AXIS TRAVEL

Y AXIS (transversal) (mm)	402
Z AXIS (vertical) (mm)	395
A AXIS (rotary base rotation)	0° + 360°
U AXIS (bar positioning) (mm)	9,660
H AXIS (vertical cutting unit vertical movement) (mm)	627
P AXIS (vertical cutting unit transversal movement) (mm)	880
ZG AXIS (horizontal cutting unit vertical movement) (mm)	190
YL AXIS (horizontal cutting unit transversal movement) (mm)	1300
YF AXIS (drilling unit transversal movement) (mm)	1200
B AXIS (ejector) (mm)	790

#### MILLING UNIT

Electro-spindle rotation unit on rotary base	0 + 360°
Air cooling electrospindles	4
Maximum number of machining units	6
Disengagement from the working field of the electrospindles by means of a slide on recirculating ball shoes	○
Maximum power in S1 (kW)	5.6
Maximum speed (rpm)	24,000
Tool connector	ER 32

#### CUTTING UNIT

Diameter of vertical cutting unit cemented carbide blade (mm)	600
Angle of vertical cutting unit (mm)	-48° to 245°
Power of vertical cutting unit three-phase blade motor (kW)	3
Diameter of horizontal cutting unit cemented carbide blade (mm)	350
Angle of horizontal cutting unit (mm)	-45° to +45°
Power of vertical cutting unit synchronous blade motor (kW)	0.85
Preparation for automatic start-up of swarf exhauster (mm)	●

#### DRILLING UNIT

Maximum tool diameter (mm)	16
Maximum tool length (mm)	50
Tool connector	ER 25
Number of tools per drilling unit	2
Drilling unit motor power (kW)	0.850
Maximum rotation speed (rpm)	7,500

#### FUNCTIONS

Workpiece milling, cutting and end-milling directly from the whole bar	●
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